DERMATOLOGY

TOPICAL ANTIFUNGAL DRUGS - AN OVERVIEW

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Abstract: *In tropical countries like India, there has been* an increase in the prevalence of dermatophytosis among adults and children over the last 6-7 years. This has been associated with rampant abuse of irrational topical corticosteroid, antifungal, antibacterial combination creams and change in the etiological agent from *Trichophyton rubrum to T.mentagrophytes. Topical azoles,* allylamines, benzylamines, hydroxy pyridone, morpholine, tolnaftate, Whitfield's ointment and polyenes are the various antifungals available to treat fungal infections. Topical antifungals are seen as a big advantage in the treatment of superficial mycoses like dermatophytosis, pityriasis versicolor and candidiasis in the pediatric population, especially in neonates and infants. High local concentration, ease of application, negligible systemic absorption and minimal adverse effects are the merits of topical antifungals. Limited infections are treated with only topical antifungals, while extensive lesions, presence of comorbid conditions, immunosuppressive therapy and infection of hair/nail warrant the use of topical antifungal agent along with a systemic antifungal drug. Topical imidazoles, allylamines, ciclopirox olamine and amorolfine are the various options currently in vogue for the treatment of dermatophytosis of skin and pityriasis versicolor. Topical imidazoles and ciclopirox olamine are effective in the treatment of mucocutaneous candidiasis. Various antifungals available for the treatment of onvchomycosis are 5% amorolfine and 8% ciclopirox olamine nail lacquers, with the newer options being 10% efinaconazole and 5% tavabarole solutions, which are yet to be available in India. Counselling plays a pivotal role in the management of dermatophytosis of glabrous skin.

Keywords: Dermatophytosis, Topical antifungals, Systemic antifungals, Fungistatic, Fungicidal.

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Points to Remember

- Fungal infections in children could include superficial mycoses to subcutaneous and opportunistic invasive mycoses, wherein the treatment may be topical or systemic antifungal drug or a combination of both.
- Topical antifungal agents, are very useful preparations in view of ease of application, high local concentration, better bioavailability, minimal side effects, negligible systemic absorption and drug – drug interactions.
- "Rule of Two" in usage of topical antifungals means it should be applied 2 cm beyond the margin of the lesion twice a day for at least 2 weeks beyond clinical resolution.
- In children with extensive lesions, hair/nail infection or steroid modified / chronic / recurrent dermatophytosis, combination of topical and systemic antifungals are needed.
- Emollients could be applied immediately after bath, after patting the skin dry and could be repeated if there is dryness of skin. Topical antifungal drug could be applied thirty minutes after emollient application.

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